MULTICOLOR AIR DRY PAINT FOR PLASTIC SUBSTRATES

DOCUMENT IDENTIFIER: A-SP-EL00092-04-A20X Rev A, 06-Apr-1992

REVISION HISTORY: No previous revision exists.

1 PURPOSE

This specification is intended to allow for the use of paints compliant with current environmental regulations and permits the use of low-temperature, waterborne paint on plastic substrates.

2 DESCRIPTION

A multicolored, textured finish shall be applied over plated or nonplated plastic material to impart color and ultraviolet (UV) color stability and to cover some imperfections in the base material.

This finish consists of a smooth basecoat of one color with a texture topcoat of a different color. The same paint formula shall be used for both the smooth and texture coat. The texture topcoat shall not completely hide the different colored basecoat.

The two paints used are standard colors and paints approved by Digital. The color number identifies the two approved colors required to create the multicolor appearance. The color number also identifies which color is the basecoat and which color is the topcoat.

Visually this finish shall match the control standard as specified by the Color Identification Number.

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APPROVAL: This specification has been approved for use.

Art Clockedile, Systems Materials Engineering

3 APPEARANCE QUALITY

Unless otherwise specified, this finish shall meet a quality level 4 described in *DEC STD 092-1 Finish and Color Standard—Finish Standard for Applicators*. When viewed from the specified distance under normal artificial lighting, the finish on a continuous surface shall exhibit no gross imperfections or variations in appearance that would cause the viewer to immediately focus on the affected area.

No sanding or grinding marks are permitted on external surfaces.

Regardless of the appearance at the specified viewing distance, no gross imperfections (such as gouges, large chips, blisters, checking, oil spots, flaking) or defects are allowed that will affect the functional properties of the part or finish.

Colors are identified by the 3-digit Color Identification Number given in the finish specification number on the part drawing.

Appearance (texture, gloss, color) of finished parts shall visually match the appropriate control standard supplied by Digital Equipment Corporation.

Touch-up will be cause for rejection if it conflicts with any other requirement in this document.

Demarcation lines, which are paint mark lines where two or more colors interface, should be relatively straight. Minor jaggedness, ± 1/32 inch over 10 linear inches, is allowable.

4 PHYSICAL PROPERTIES

Paint materials approved by Digital shall be used and shall meet the requirements of *DEC STD 092-3 Finish and Color Standard—Finish Material Test Requirements*, Tables 1, 2, and 3 that apply to air dry, lowcure, waterborne paint on plastics.

a. Base material preparation: Surface preparation shall be in accordance with 092-A40X-XXX, *Surface Preparation Finish*.

b. Film thickness requirements:
0.03 mm ± 0.01 mm (0.001 in ± 0.0003 in) for smooth surfaces
0.04 mm ± 0.01 mm (0.0015 in ± 0.0003 in) for texture surfaces

5 QUALITY OF COATING

Adhesion Requirements:

a. Using the Cross Cut Method described in ASTM D3359, *Standard Test Methods for Measuring Adhesion by Tape Test*, method B, a rating of 4 or better shall be considered acceptable.

b. Scotch Brand #600 tape, 1 inch wide, shall be applied with uniform pressure. Within 90 ± 30 seconds of application the tape shall be removed in a quick motion at 90 degrees to the surface. For acceptance, the finish shall remain unbroken after the tape is removed.

6 PACKAGING, STORAGE, AND HANDLING

Before, during, and after painting, the parts shall not be subjected to any environments that may affect the appearance or function of the coating. The painted parts shall be packaged to protect the parts and their finish during normal handling operations, transportation, and storage.

7 GENERAL REQUIREMENTS

Unless otherwise specified, nonvisible internal surfaces do not need to be painted and shall be identified by the responsible Digital engineering group.

Overspray on nonvisible, nonpainted surfaces may be acceptable provided it is agreed upon by the responsible Digital engineering group, and does not interfere with any functional requirement, such as electrical contact when a plastic part is metallized.

The use of organic primers is acceptable if it does not conflict with any other requirement in this document, or unless otherwise specified.

Heating up to 66°C (150°F) can be used to force-dry the coating, if this temperature will not affect the mechanical properties of the substrate.